



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2015-5809; Directorate Identifier 2015-NM-055-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede Airworthiness Directive (AD) 2006-19-12, which applies to certain The Boeing Model 777-200 and -300 series airplanes.

AD 2006-19-12 currently requires inspecting the lower web of the aft fairing of the engine struts for any discoloration and doing any related investigative and corrective action if necessary; inspecting the heat shield castings for any damage and doing any corrective action if necessary; installing gap cover strips; and replacing insulation blankets with new insulation blankets. Since we issued AD 2006-19-12, we have received a report that an aft fairing lower spar web exceeded the allowable conductivity limits. This proposed AD would also require, depending on airplane configuration, one-time or repetitive detailed inspections for cracking and deformation, as applicable, of the aft fairing lower structure, and one-time or repetitive conductivity inspections of the aft fairing lower structure and related investigative and corrective actions if necessary. This proposed AD also adds airplanes to the applicability. We are proposing this AD to detect and correct degradation of the aft fairing lower web, which could lead to cracking of the web and could allow flammable fluids to leak into the heat shield pan castings, and consequent increased risk of an uncontained fire and subsequent structural damage.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-5809.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-5809; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office

(phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Sue Lucier, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-917-6438; fax: 425-917-6590; email: [suzanne.lucier@faa.gov](mailto:suzanne.lucier@faa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-5809; Directorate Identifier 2015-NM-055-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

##### **Discussion**

On September 13, 2006, we issued AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006), for certain Boeing Model 777-200 and -300 series airplanes. AD 2006-19-12 requires inspecting the lower web of the aft fairing of engine struts for any discoloration and doing any related investigative and corrective action if necessary; inspecting the heat shield castings for any damage and doing any corrective action if necessary; installing gap cover strips; and replacing insulation blankets with new

insulation blankets. AD 2006-19-12 resulted from a report that several discolored fairing lower webs and some damaged/deteriorated insulation blankets were found in the aft fairings of engine struts. We issued AD 2006-19-12 to prevent cracking of lower webs of the aft fairings, which could result in flammable hydraulic fluid leaking onto or near an ignition source, and possibly result in an uncontrollable fire in the engine strut area.

**Actions Since AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006) Was Issued**

Since we issued AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006), we have received a report that an aft fairing lower spar web exceeded the allowable conductivity limits. An investigation concluded that wear to the pan casting and gap cover strips allowed increased heat into the aft fairing heat shield cavity, which exceeded the thermal capability of the insulation blankets.

**Related Service Information under 1 CFR part 51**

We have reviewed Boeing Service Bulletin 777-54-0026, Revision 2, dated January 5, 2012. The service information describes procedures for a detailed inspection of the gap cover strips and heat shield pan castings for damage, corrective actions, and installation of new gap cover strip fillers, new velcro strips, and new aft fairing insulation blankets.

We reviewed Boeing Special Attention Service Bulletin 777-54-0038, dated March 6, 2015. The service information describes procedures for one-time and repetitive detailed inspections for any cracking and deformation, as applicable, of the aft fairing lower structure; conductivity inspections of the aft fairing lower structure; and related investigative and corrective actions.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

## **FAA’s Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

## **Proposed AD Requirements**

This proposed AD would retain all requirements of AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006). In addition, this proposed AD would add airplanes to the applicability of this AD. This proposed AD would also require accomplishing the actions specified in the service information described previously.

The phrase “related investigative actions” is used in this proposed AD. “Related investigative actions” are follow-on actions that (1) are related to the primary action, and (2) further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

The phrase “corrective actions” is used in this proposed AD. “Corrective actions” are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

## **Change to AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006)**

Since AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006) was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have been redesignated in this proposed AD, as listed in the following table:

**Revised paragraph identifiers**

<b>Requirement in AD 2006-19-12</b>	<b>Corresponding requirement in this proposed AD</b>
paragraph (f)	paragraph (g)
paragraph (g)	paragraph (h)
paragraph (h)	paragraph (i)

## Costs of Compliance

We estimate that this proposed AD affects 99 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection and other actions [retained actions from AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006)]	Up to 11 work-hours X \$85 per hour = \$935, depending on airplane configuration	Up to \$16,179, depending on airplane configuration	Up to \$17,114, depending on airplane configuration	Up to \$1,694,286, depending on airplane configuration
Inspections [new proposed action]	Up to 24 work-hours X \$85 per hour = \$2,040, depending on airplane configuration	\$0	Up to \$2,040, depending on airplane configuration	Up to \$201,960, depending on airplane configuration

We estimate the following costs to do any necessary related investigative and corrective actions that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these inspections and replacements:

### On-condition costs

Action	Labor cost	Parts cost	Cost per product
Related Investigative Actions	Up to 36 work-hours X \$85 per hour = \$3,060, depending on airplane configuration	\$0	Up to \$3,060, depending on airplane configuration

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Corrective Actions	Up to 38 work-hours X \$85 per hour = \$3,230, depending on airplane configuration	\$0	Up to \$3,230, depending on airplane configuration

According to the manufacturer, all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

#### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

#### **Regulatory Findings**

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national

Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006), and adding the following new AD:

**The Boeing Company:** Docket No. FAA-2015-5809; Directorate Identifier 2015-NM-055-AD.

#### **(a) Comments Due Date**

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].



**(b) Affected ADs**

This AD replaces AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006).

**(c) Applicability**

This AD applies to The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes, certified in any category, as identified in Boeing Special Attention Service Bulletin 777-54-0038, dated March 6, 2015.

**(d) Subject**

Air Transport Association (ATA) of America Code 54, Nacelles/pylons.

**(e) Unsafe Condition**

This AD was prompted by a report that an aft fairing lower spar web exceeded the allowable conductivity limits. An investigation concluded that wear to the pan casting and gap cover strips allowed increased heat into the aft fairing heat shield cavity. We are proposing this AD to detect and correct degradation of the aft fairing lower web, which could lead to cracking of the web and could allow flammable fluids to leak into the heat shield pan castings, and consequent increased risk of an uncontained fire and subsequent structural damage.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Inspection, Installation, and Replacement Actions with No Changes**

This paragraph restates the actions required by paragraph (f) of AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006), with no changes. For Model 777-200 and -300 series airplanes identified in Boeing Special Attention Service Bulletin 777-54-0021, Revision 1, dated March 16, 2006: Except as provided by paragraph (h) of this AD, within 12 months after October 30, 2006 (the effective date of AD 2006-19-12), do the actions specified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD, in

accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-54-0021, Revision 1, dated March 16, 2006.

(1) Do a general visual inspection of the lower web of the aft fairing for any discoloration and do any related investigative action.

(2) Do a general visual inspection of the heat shield castings for any damage (crack(s), dent(s), gouge(s), warpage, fretting, or missing/loose nutplates).

(3) Install gap cover strips on the heat shield pans.

(4) Replace insulation blankets on the heat shield pans with new insulation blankets.

**(h) Retained Repair Instructions**

This paragraph restates the actions required by paragraph (g) of AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006), with no changes. If any damage, discoloration, heat damage, or crack is found during any inspection required by paragraph (g) of this AD: Before further flight, do all applicable corrective actions in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, or in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-54-0021, Revision 1, dated March 16, 2006.

**(i) Retained Credit for Previous Actions with Revised Format**

This paragraph restates the credit provided by paragraph (h) of AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006), with revised format. This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before October 30, 2006 (the effective date of AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006)) using Boeing Special Attention Service Bulletin 777-54-0021, dated June 23, 2005, except where Boeing Special Attention Service Bulletin 777-54-0021, dated June 23, 2005, does not provide an International Annealed Copper Standard (IACS) value for determining the results of the

inspection for heat damage, the maximum acceptable IACS value is 42 percent. Boeing Special Attention Service Bulletin 777-54-0021, dated June 23, 2005, is not incorporated by reference in this AD.

**(j) New Requirements: Detailed and Conductivity Inspections and Related Investigative and Corrective Actions (Repetitive Inspections for Certain Airplanes)**

Within 24 months after the effective date of this AD: Do detailed and conductivity inspections of the aft fairing lower structure for cracks and deformation, as applicable, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-54-0038, dated March 6, 2015. Do all applicable related investigative and corrective actions before further flight. For Group 1, Configurations 1 and 3 airplanes, and Group 2, Configuration 1, airplanes, identified in Boeing Special Attention Service Bulletin 777-54-0038, dated March 6, 2015, repeat the inspections thereafter at intervals not to exceed 24 months until the terminating action specified in paragraph (k) of this AD is done.

**(k) Optional Terminating Action**

Accomplishing a detailed inspection of the gap cover strips and heat shield pan castings for damage and applicable corrective actions, and installation of new gap cover strip fillers, new velcro strips, and new aft fairing insulation blankets, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 777-54-0026, Revision 2, dated January 5, 2012, concurrently with accomplishing detailed and conductivity inspections and all applicable related investigative and corrective actions required by paragraph (j) of this AD, terminates the repetitive inspections specified in paragraph (j) of this AD; except where Boeing Service Bulletin 777-54-0026, Revision 2, dated January 5, 2012, specifies to contact the manufacturer, repair using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

**(l) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (m)(1) of this AD. Information may be emailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved for AD 2006-19-12, Amendment 39-14769 (71 FR 55727, September 25, 2006) are approved as AMOCs for the corresponding provisions of paragraphs (g), (h), and (i) of this AD.

**(m) Related Information**

(1) For more information about this AD, contact Sue Lucier, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-917-6438; fax: 425-917-6590; email: suzanne.lucier@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle,

WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on November 12, 2015.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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